

**AMENDMENTS TO THE CLAIMS**

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims in the application.

Please amend claims 1, 3, 4, and 6-19, and cancel claims 2 and 5 as follows:

1           1. (Currently Amended) A system for network address translation and session management,  
2     comprising:

3           a calling terminal connected to ~~an external~~ a network disposed outside of a private network  
4     address translation (NAT) network;

5           a plurality of call agents constituting the private NAT network having a network address  
6     translation block, and the plurality of call agents being responsible for establishing a call between  
7     the calling terminal and the private NAT network; and

8           [[a]] the network address translation block [[for]] receiving a session initiation protocol  
9     message transmitted from the calling terminal, ~~performing address translation and session~~  
10    ~~management for the calling terminal of an internal session initiation protocol~~ translating a public  
11    network address extracted from the session initiation protocol message transmitted from the calling  
12    terminal to a local network address, and establishing a session for a communication path between  
13    the calling terminal and a selected call agent among the plurality of call agents; and

14    ~~— a plurality of call agents constituting a private local network with the network address~~  
15    ~~translation block, for being responsible for a call process.~~

1           2. (Cancelled)

1           3. (Currently Amended) The system according to claim 1, wherein the network address  
2 translation block interfaces ~~[[a]] the call by selecting one call agent among [[a]] the plurality of~~  
3 ~~[[the]] call agents and for on "INVITE" message [[which]] is a call establishment request message~~  
4 the session initiation protocol message generated from the calling terminal comprises an INVITE  
5 message.

1           4. (Currently Amended) A system for network address translation and session management,  
2 comprising:

3           a plurality of call agents disposed within a private network address translation (NAT)  
4 network responsible for establishing a call process between a called terminal and the private NAT  
5 network;

6           a network address translation block disposed within the private NAT network and connected  
7 ~~[[to a]] between the plurality of the call agents and the called terminal through a local network,~~  
8 ~~[[for]] performing address translation and session management for a session initiation protocol~~  
9 ~~message received from the call agents existing in the local network by interfacing an external~~  
10 network translating a local network address extracted from a session initiation protocol message  
11 transmitted from one of the plurality of call agents into a public network address, and establishing  
12 a session for a communication path between the called terminal and the one of the plurality of call  
13 agents; and

14           [[a]] the called terminal connected to the network address translation block [[and]] being  
15 connected to an external network disposed outside of the private NAT network.

1           5. (Cancelled)

1           6. (Currently Amended) The system according to claim 4, wherein the network address  
2 translation block interfaces [[a]] the call between the called terminal[[s]] corresponding to [[one]]  
3 a value of "CallID" of an "INVITE" message by analyzing [[an]] the "INVITE" message generated  
4 from the one of the plurality of [[the]] call agents.

1           7. (Currently Amended) A method ~~for sending a call, at a calling terminal, in a system for~~  
2 network address translation and session management, the method comprising the steps of:

3           receiving, at a network address translation block disposed within a private network address  
4 translation (NAT) network and provided between [[the]] a calling terminal connected to a network  
5 disposed outside of the private NAT network and a plurality of call agents disposed within the  
6 private NAT network for sending a call from the calling terminal to the private NAT network, a call  
7 establishment request message generated from the calling terminal ~~connected to an external network~~,  
8 extracting a public network address from the received call establishment request message, and  
9 storing the extracted public network address;

10           selecting a specific call agent among [[a]] the plurality of the call agents, storing a  
11 communication path for the selected specific call agent in session information of a relevant call; and

12 distributing traffic by transmitting a session initiation protocol message transmitted from the  
13 calling terminal, to [[a]] the selected call agent only, using information stored in a session of the  
14 relevant call.

1 8. (Currently Amended) The method according to claim 7, wherein the selection of the  
2 specific call agent ~~in the above~~ among the plurality of call agents, is [[made]] performed by selecting  
3 different one call agent among a plurality of [[the]] call agents upon [[for a]] the call establishment  
4 request message generated [[from a]] by the calling terminal is received by the NAT block.

1 9. (Currently Amended) The method according to claim 7, ~~wherein the network address~~  
2 ~~translation block at the receiving step, performs~~ further comprising the steps of:

3 judging a beginning of [[a]] the call when [[a]] the call establishment request message  
4 generated from the calling terminal connected to the ~~external public network~~ network disposed  
5 outside of the private NAT network is received by the NAT block;

6 generating one session for [[a]] the call using a value of "CallID" [[value]] of the received  
7 call establishment request message, and storing a public network address and a UDP(User Datagram  
8 Protocol) port of the calling terminal; [[and]]

9 selecting one call agent among [[a]] the plurality of [[the]] call agents constituting [[a local]]  
10 the private NAT network, and storing an address of [[that]] the selected call agent in the generated  
11 session; and [[, then]]

12 transmitting a session initiation protocol message to the selected call agent.

1           10. (Current Amended) The method according to claim 7, ~~wherein the network address~~  
2 ~~translation block in the receiving step, further performs~~ further comprising the step of deleting a  
3 session in which all information for ~~[[a]]~~ the relevant call is stored when the relevant call is  
4 completed.

1           11. (Current Amended) The method according to claim 7, ~~wherein the network address~~  
2 ~~translation block at the receiving step, performs~~ further comprising the step of selecting a new call  
3 agent among the plurality of the call agents for uniform distribution of a second call when an  
4 “INVITE” message of ~~[[a]]~~ the second call is received after ~~[[a]]~~ the first call is terminated,  
5 processing a relevant call by transmitting the “INVITE” message to the newly selected call agent.

1           12. (Currently Amended) The method according to claim 7, with the storing of the  
2 communication path for the specific call agent in the session information of the relevant call being  
3 performed after the steps of receiving the call establishment request message, extracting the public  
4 network address and storing the public network address.

1           13. (Currently Amended) A method ~~for receiving a call, at a called terminal, in a system for~~  
2 network address translation and session management, the method comprising the steps of:  
3           receiving, at a network address translation block disposed within a private network address  
4 translation (NAT) network and provided between [[the]] a called terminal connected to a network

5 disposed outside of the private NAT network and a plurality of call agents disposed within the  
6 private NAT network for sending a call from the private NAT network to the called terminal, a call  
7 establishment request message generated from one of a plurality of the call agent[[s]] ~~connected~~  
8 ~~through a local network~~, extracting a ~~public-private~~ network address from the received call  
9 establishment request message, and storing the extracted public-private network address;

10 storing a communication path for a ~~specific~~ call agent among [[a]] the plurality of [[the]] call  
11 agents in session information of a relevant call; and

12 distributing traffic by transmitting a session initiation protocol message transmitted from the  
13 specific call agent, to a selected calling terminal only, using information stored in a session of the  
14 relevant call.

1 14. (Currently Amended) The method according to claim 13, wherein the calling terminal  
2 ~~at the receiving step~~, transmits and receives [[a]] the session initiation protocol message [[only]]  
3 through ~~different~~ the [[one]] call agent among [[a]] the plurality of the call agents.

1 15. (Currently Amended) The method according to claim 13, wherein the network address  
2 translation block ~~at the receiving step~~, performs the steps of:

3 generating the session for [[a]] the relevant call using a value of "CallID" of an "INVITE"  
4 message when [[an]] the "INVITE" message for initiating ~~a terminated session initiation protocol~~  
5 the call is received from the call agent[[s]] ~~in a terminating side~~;

6 changing [[a]] the extracted [[local]] private network address of a "Via" field and a "Contact"

7 field within the “INVITE” message, into a public network address, and transmitting the “INVITE”  
8 message to the ~~terminal of the public network~~ disposed outside of the NAT network; and  
9 storing, in a relevant session, address information of ~~[[a]]~~ the call agent which transmits the  
10 ~~[[local]]~~ private network address and the “INVITE” message.

1 16. (Currently Amended) The method according to claim 13, wherein the network address  
2 translation block ~~at the receiving step~~, performs the step of, when ~~[[a]]~~ the call agent receives a  
3 “BYE” message ~~transmitted indicating~~ releasing ~~[[a]]~~ the call after ~~[[a]]~~ the call is completed,  
4 changing ~~a local~~ the private network address, within the “BYE” message, into a public network  
5 address, transmitting the public network address to the called terminal.

1 17. (Currently Amended) The method according to claim 13, wherein the network address  
2 translation block ~~at the receiving step~~, further performs the step of deleting the session in which all  
3 information for ~~[[a]]~~ the relevant call is stored when the relevant call is completed.

1 18. (Currently Amended) The method according to claim 13, with the storing of the  
2 communication path for the specific call agent in session information of the relevant call being  
3 performed after the steps of receiving the call establishment request message, extracting the public  
4 network address and storing the public network address.

1 19. (Currently Amended) A computer-readable medium having computer-executable

instructions for performing a method, the method comprising:

receiving, at a network address translation block provided between a calling terminal connected to a network disposed outside of a private network address translation (NAT) network and a plurality of call agents disposed within the private NAT network, a call establishment request message generated from the calling terminal ~~connected to an external network~~, extracting a public network address from the received call establishment request message, storing the extracted public network address;

selecting a specific call agent among [[a]] the plurality of [[the]] call agents, storing a communication path for the specific call agent in session information of a relevant call; and

distributing traffic by transmitting a session initiation protocol message transmitted from the calling terminal, to [[a]] the selected call agent [[only]], using information stored in a session of the relevant call.